

cially interesting to geologists in comparison with the published lists of Post-tertiary fossils from Scandinavia, as well as from the Clyde beds, Kelsea Hill, Bridlington, and other so-called "glacial" deposits in this country. These lists contain many more species than were found in Grinnell Land, and may therefore be regarded as arctic rather than polar. In fact I do not know a single fossiliferous deposit in Europe which is exactly similar to that which Capt. Feilden has so carefully examined throughout such an extensive area.

J. GWYN JEFFREYS.

Ware Priory, 17th Nov., 1877.

LXI.—*Appendix to Papers "On the Distribution of Birds in North Russia"* ('Annals,' 1877)—*being Additions to the Data for the Southern Division, by Herr Richard Sievers (with Summaries up to Date)*. By J. A. HARVIE BROWN, F.Z.S.

I AM much indebted to Herr R. Sievers, of Helsingfors, for generously putting at my disposal particulars in MS. of his journeys in 1875 and 1876, along with a list of the species met with—*first*, along the river Swir, in the summer of 1875 (June 9–July 24), and, *second*, in Northern Onega, Powanetz, the peninsula of Saoneskje, Petrozavodsk, at Lake Wig, Segosero, &c. in 1876 (June 17 to September)*.

These particulars, however, arrived just too late for insertion in Part III. of my paper ('Annals,' September 1877, p. 180); and as Herr Sievers has informed me that his fuller account may be shortly expected, I have thought that the abstract furnished to me by Herr Sievers may be acceptable as bringing the additional information as regards distribution up to date. I beg therefore to offer it in the form of an Appendix to my other papers. Herr Sievers has also informed me of the title of his paper; so that I am able to insert it here, following the same plan as heretofore.

24.

1877. SIEVERS, R. "Ornitologiska anteckningar under resor i gouvernementen Olonetz somrarna 1875 och 1876." (Meddelanden af Societas pro Fauna et Flora Fennica, häft ii.)

One hundred and thirty species are mentioned by Herr

* The most northerly locality he reached was the northern shore of Wig Lake, so that all his observations apply to our South-west District.

Sievers, all from our S.W. District; and four others* not observed by himself are given on the authority of Herren Sahlberg and Günther, which gentlemen Prof. Palmén makes mention of and quotes in his 'Finlands Foglar,' making in all one hundred and thirty-four species noticed by Herr Sievers in his communications.

List of Species observed by Herr R. Sievers in the S.W. District.

N.B. Additions to the fauna of the district are indicated by the letters S.W.D. (South-west district) being affixed.

Additions to the fauna of the Division by the letters S.D. added and affixed.

Additions to the fauna of North Russia by the letters N.R. added, and by being numbered "bis."

Those which are not additions to the fauna of North Russia retain the numbers given in Part III.†

The notes appended to the notices of the species are by Herr Richard Sievers. Additional notes in brackets are given on some of the species by me.

2. *Aquila chrysaëtus*, (L.) .|. Observed on Segosero. S.W.D.
4. *Haliaëtus albicilla*, (L.) . 1? Possibly I saw this species on Onega Sea.
5. *Pandion haliaëtus*, (L.) ||. Many times observed.
6. *Buteo vulgaris*, Bechst. ||. Nests.
8. — *lagopus*, Brünn. .|.|. Once on Segosero, July 7, 1876.
9. *Pernis apivorus*. .|.|. Once on the Swir, July 5, 1875. [Lilljeborg (4) gives it as generally distributed between Ladeinopole and the Dvina in the woods. Meves (8) saw it once at Schlüsselburg.]
15. *Falco subbuteo*, L. ||. On Swir, Onega, Wyg-See, Segosero. Breeds. Shot Aug. 8, 1876.
16. — *vespertinus*, L. ||. Breeds.
17. — *cesalon*, L. .|.|. Only once on Onega.
18. — *tinnunculus*, L. .|.|. At Segosero and Onega.
19. *Accipiter palmbarius*, L. .|.|. Seen once on Onega.
20. *Circus cyaneus*, (L.) .|.|. Once on Onega Sea.
25. *Glaucidium passerinum*, (L.) .|.|. Nests at Segosero. S.W.D.
27. *Nyctale Tengmalmi*, (Gmel.) .|.|. Nests on the Swir.
31. *Asio accipitrinus*, (Pall.) .|.|. On the Swir.

* *Charadrius hiaticula*, *Scolopax gallinula*, *Anas querquedula*, and *Podiceps auritus*. Of those recorded by Lilljeborg and Meves during their stay at Sermaks, Ladeinopole, and Wosnesenski, Herr Sievers did not observe the following—*Fringilla coccythraustes*, *Turdus viscivorus*, *Coracias garrula*, *Locustella fluviatilis*, *Accentor modularis*, *Corvus corone*, *Limosa egocephala*, *Ardea stellaris*. On the other hand, he adds to Kessler's list of the birds of the Government of Olonetz (vide 'Annals,' Sept. 1877, p. 182) these—*Picus leucnotus*, *Podiceps cristatus*, and *Sterna fluviatilis*.

† Owing to an unfortunate slip in arranging and paging the MS. of Part III., the species numbered in the Table 59-73 should in correct order follow No. 42, and those numbered 43-58 should be numbered 58-73. To avoid further confusion, however, I think it is better now to retain the order as given in Part III., erroneous though it be.

32. *Bubo ignavus*, (Forst.). ·|. North-west from Onega Sea. S.W.D.
 33. *Dryocopus martius*, (L.). ·|. Nests on the Swir.
 34. *Picus major*, L. ††. Nests.
 35. — *leuconotus*, (Bechst.). ▽. Once on the Swir.
 37. — *minor*, L. ·|. Nests.
 38. *Picoides tridactylus*, (L.). ·|. On the Swir and Onega.
 41. *Yunx torquilla*, L. ·|. Only found on the Swir.
 42. *Cuculus canorus*, L. ††. Nests.
 44. *Passer domesticus*, (L.). ††. Nests.
 45. — *montanus*, (L.). ††. Nests.
 47. *Pyrrhula major*, Brehm. ||. Nests. [In Herr Siever's MS. this is given as *P. vulgaris*, Briss.; but I have ventured to refer the record to the eastern species.]
 48. *Carpodacus erythrinus*, (Pall.). ·|. On the Swir. [When passing in the 'Drishkott' or canal-boat along the southern end of Lake Onega in 1872, Alston and myself observed a fine male of this species perched on the top of a bush on the canal-bank.]
 50. *Loxia curvirostra*, L. ○. Only found on the Swir.
 52. — *pitjopsittacus*, Bechst. Found on Onega, Wyg-See, and Segosero. S.W.D.
 55. *Fringilla cœlebs*, L. ††. Nests.
 56. — *montifringilla*. ·|. On Lind-osero, between Wyg-See and Segosero.
 58. *Carduelis spinus*, (L.). ||. Nests.
 63. *Corvus corax*, L. ††.
 65. — *cornix*, L. ††.
 66. — *monedula*, L. ††. Nests.
 67. — *frugilegus*, L. ▽. Seen once on the Swir, June 17, 1875.
 70. *Pica caudata*, (L.). ††. Nests.
 71. *Garrulus infaustus*, (L.). ††. In the northern districts. Nests.
 72. — *glandarius*, (L.). ·|. On the Swir and Onega. Nests.
 S.W.D.
 74. *Lanius excubitor*, L. ·|. Swir, Onega, Segosero.
 75. — *collurio*, L. ○. Only on the Swir. Nests.
 77. *Linota linaria*, (L.). ||. Nests.
 81. *Emberiza aureola*, Pall. Very ·|. Only on the south of Wyg-See and in northern Onega.
 82. — *citrinella*, L. ††. Nests.
 83. — *rustica*, Pall. ||. Nests. Swir, Onega, Wyg-See, Segosero.
 86. — *schœniclus*, L. ††. Nests.
 89. *Alauda arvensis*, L. ††. Nests.
 92. *Anthus trivialis*, (L.). ·|. Very rarely found.
 93. — *pratensis*, (L.). ††. Nests.
 99. *Budytes flavus*, L. ††. Nests.
 102. *Motacilla alba*, L. ††. Nests.
 104. *Oriolus galbula*, L. ·|. Nests. Swir and Onega.
 107. *Turdus pilaris*, L. ||. Nests.
 109. — *iliacus*, L. ||. Nests.
 111. — *musicus*, L. ||. Nests.
 112. *Erythaca rubecula*, (L.). ||. Nests.
 114. *Ruticilla phœnicura*, (L.). ††. Nests.
 115. *Saxicola œnanthe*, (L.). ††. Nests.
 116. *Pratincola rubetra*, (L.). ††. Nests.
 121. *Sylvia garrula*, Briss. ·|.
 122. — *rufa*, (L.). ††. Nests.
 123. — *atricapilla*, L. ·|. Nests. On Swir, in Onega, Petrozavodsk.

124. *Sylvia salicaria*, (L.). ††. Nests.
 126. *Hypolaïs ieterina*, (Vieill.). ·|. Very rare. Only on Ladoga.
 (Compare records of authorities Nos. 4, 8.)
 128. *Acrocephalus dumetorum*, Blyth. ·|. Nests. Found on the Swir,
 June 19, 1876.
 132. *Calamodius schœnobœnus*, (L.). ||. On the Swir. Nests. Found
 at Petrozavodsk in Onega.
 134. *Daulias lusciniæ*, (L.). ·|. Very rare. Only on the Swir.
 139. *Phylloscopus trochilus*, (L.). ††. Nests.
 141. — *collybita*, (Vieill.). ||. Nests.
 147. *Regulus cristatus*, Charleton. ·|. Onega.
 148. *Troglodytes parvulus*, Koch. ·|. Nests. On Swir and N.W. of
 Onega.
 153. *Parus borealis*, De Sélvs. ††. Nests.
 155. — *cinctus*, Bodd. ·|. Very rare. Nests. On Segosero and
 Onega.
 156. — *cristatus*, L. ||. Nests.
 157. *Acredula caudata*, (L.). ·|. Very rare. Nests. Only on the
 Swir.
 158. *Ampelis garrula*, L. ▧. One pair found on Segosero, July 6,
 1876.
 159. *Muscicapa atricapilla*, L. ||. Nests.
 160. — *grisola*, L. ††. Nests.
 160 bis. — *parva*, Bechst. Nests. Found on the Swir, July 14-
 16, 1875. One ♂ shot at Petrozavodsk in Onega, Sept. 4, 1876. N.R.,
 S.D., S.W.D.
 161. *Hirundo urbana*, L. ††. Nests.
 162. — *rustica*, L. ††. Nests.
 163. — *riparia*, L. ||. On the Swir; only once seen in Onega.
 Nests.
 164. *Cypselus apus*, (L.). ††. Nests.
 165. *Caprimulgus europæus*, L. ||. "Not rare" on Swir and Onega.
 166. *Columba palumbus*, L. ⊙. Occurs in districts of Onega Sea.
 171. *Lagopus albus*, (Gm.). ▧? Once seen on Swir by Sahlberg.
 S.W.D.?
 173. *Tetrao urogallus*, L. |. Nests.
 175. — *tetrix*, L. ||. Nests.
 176. — *bonasia*, L. ||. Nests.
 182. *Charadrius plumbeus*, (L.). |. One small flock on Wyg river.
 183. *Ægialites hiaticula*, (L.). |. Segosero. Nests (*auct.* Sahlberg).
 184. — *curonicus*, Besecke. ·|. Very rare. Nests. Found on
 Ladoga and Swir, June 22, 1876.
 185. *Vanellus cristatus*, M. & W. ·|. Very rare. On the Swir,
 July 23, 1875.
 188. *Grus cinerea*, Bechst. ||. Nests.
 189. *Ardea cinerea*, L. ·|. Very rare. Once on the Swir, July 23,
 1875.
 197. *Scelopax rusticola*, L. ·|. Very rare. Found in autumn at
 Petrozavodsk in Onega.
 199. *Gullinago gallinaria*, (Gm.). ||. In the southern parts. Nests.
 200. *Scelopax gallinula*, L. |. Petrozavodsk on Onega (*auct.* Günther),
 and nests on the Wyg river (*auct.* Sahlberg).
 204. *Tringa subarquata*, (Güld.). ·|. Very rare. Migrating in north-
 west of Onega, Aug. 22, 1876.
 205. — *alpina*, L. ·|. Very rare. Once shot on the Swir, on
 July 19.
 206. — *minuta*, Leisl. Migrates in flocks quickly.

207. *Tringa Temminckii*, Leisl. Migrates in flocks quickly.
 209. *Totanus canescens*, (Gm.). ||. Nests. Not rarely found on the Swir, Onega, Segosero.
 213. — *glareola*, (L.). ||. Nests.
 214. — *ochropus*, (L.). |. Nests. Found on the Swir and in Onega.
 216. *Actitis hypoleucis*, (L.). ††. Nests.
 218. *Machetes pugnax*, (L.). ·|. On Swir, Aug. 20, 1875; in Onega, Aug. 3.
 221. *Crex pratensis*, Bechst. ·|. Very rare. Only on the Swir.
 222. *Ortygometra porzana*, (L.). ·|. On the Swir, July 3, 1875. [Compare records of other authorities 4, 8, 11. In 1872 Alston and I heard the quail-like note of this species in every direction in the marshes on the south of Lake Onega, and traced it commonly as far north as Archangel. Lilljeborg and Meves both testify to its common occurrence.]
 226. *Anser segetum*, Gm. ·|. Very rare. One pair nesting between Wyg-See and Segosero.
 232. *Cygnus musicus*, Bechst. ||. In the northern parts. Nests.
 236. *Anas boschas*, L. ||. Nests.
 238. — *penelope*, L. ||. Nests.
 239. — *acuta*, L. ▽. Once shot on Onega See (but compare other records, 4, 5, 8, 11).
 240. — *circia*, L. |. On Segosero and Tindie, north-west of Onega. Nests (auct. Sahlberg).
 241. — *crecca*, L. ||. Nests.
 242. *Fuligula cristata*, (L.). ·|. Very rare. Only in September in Onega. [Lilljeborg (4) observed it at Wuitegra and on the Dwina; Meves at Novaja Ladoga, Sermaks, and Archangel, and says "not rare;" Palmén (11, p. 509) treats of it as common in the districts around Ladoga.]
 243. — *marila*, (L.). ||. In northern Onega See. Nests.
 246. — *glaucion*, (L.). ††. Nests.
 247. — *glacialis*, (L.). ·|. Very rare. Does not breed. On Segosero, Aug. 4, 1876.
 252. *Eidemia nigra*, (L.). |. Nests on Wyg-See and Segosero.
 254. *Mergus merganser*, L. ·|. Nests.
 255. — *serrator*, L. ††. Nests.
 257. *Podiceps griseigena*, (Bodd.). ||. Nests. On the Swir, Segosero, and in Onega.
 258. — *auritus*, Lath. ▽. Once found by Günther at Petrozavodsk.
 259. — *cristatus*, L. ·|. Very rare. Once seen on the Swir, July 23, 1875.
 261. *Colymbus arcticus*, L. ·|. Nests.
 263. — *septentrionalis*, L. ||. Nests.
 278. *Larus fuscus*, L. ||. Nests.
 281. — *canus*, L. ††. Nests.
 285. *Sterna fluviatilis*, Naum. ||. Everywhere common on the Swir and Onega See.

An examination of Herr Sievers's results, as shown above, gives the following additions to the fauna of the *district*, of the *DIVISION*, and of *North Russia*.

North Russia: 1 species added, viz. *Muscicapa parva* (160 bis)*.

* Making up to date authentic total for North Russia of 282.

Southern Division: 1* species added, viz. ditto.

South-west District: 6 or 7† species added, viz. *Aquila chrysaëtus*, *Glaucidium passerinum*, *Bubo ignavus*, *Loxia pityopsittacus*, *Garrulus glandarius*, *Muscicapa parva*, *Lagopus albus*?

LXII.—*The Nomenclature of the Groups of Ratitæ.*

By ALFRED NEWTON, M.A., F.R.S., V.P.Z.S.

SINCE Professor Huxley published (Proc. Zool. Soc. 1867, pp. 415–472) the results of his researches on the classification of Birds, no thinking ornithologist can have doubted that the different groups of his “Order” *Ratitæ* are natural and well-defined, any more than that these groups are severally equivalent to the so-called “Orders” of *Carinatae* as accepted by most ornithologists. But ten years have passed away without any one attempting (so far as I know) to give these groups definite names; and no inconsiderable inconvenience has sprung from this abstinence, to put an end to which I now, with the good-will of Prof. Huxley, venture to bring forward some suggestions on the subject.

I would premise, however, that if, as I believe, these groups are established on a basis even surer than those to which, by the consent of almost all ornithologists, the name of “Order” has been assigned, it would be fitting to apply to the former also the same name. Prof. Huxley, moved by considerations which I fully appreciate, though into them I need not here enter, proposed to treat the whole existing Class *Aves* as composed of but two “Orders,” *Ratitæ* and *Carinatae*. But some deference is due to the views so long entertained by writers who have always been regarded as authorities on the classification of birds; and though, when compared with the “Orders” of other Classes of Vertebrates, the generally received “Orders” of most ornithologists unquestionably fail to exhibit the same trenchant characters, yet very great confusion would follow were we to give up the title we have been accustomed to apply to these groups of Carinate Birds. It seems to me that the easiest mode of escaping this practical difficulty is to raise the groups *Ratitæ* and *Carinatae* to the rank of Subclasses‡; for

* Making up to date authentic total for Southern Division of 231.

† Making up to date authentic total for South-west District of 174.

‡ This was doubtless intended to have been done by Messrs. Selater and Salvin (*Nomenclator Avium Neotropicalium*, p. iv); but by an obvious oversight the word “Subordo” is printed in place of “Subclassis,” “Subordo” in its proper sense being used on the opposite page and elsewhere.